

Professional and Managerial Branch
Water Utilities Administration Group
Professional Engineer Series

E.P.W.U. CHIEF TECHNICAL OFFICER

05/97

Summary

Under administrative direction, manage and coordinate Water Utility engineering, strategic development and related functions through subordinate division and section heads.

Typical Duties

Plan, develop, organize and integrate project administration, design engineering, developer services, land and contracts administration, and land use, environmental, water resource, water and sewer utility planning functions. Involves: guiding subordinate divisions and sections in defining operational objectives and desirable service levels; developing short and long term divisional goals and performance standards, capital improvement plans, and related planning elements; ensuring project development proceeds in an orderly and timely manner through design, contract award and construction; reporting status of planning and engineering projects; assisting General Manager by effectively formulating technical policies; and developing related long range strategies; participating with other top management in organization, preparation and conduct of information campaigns to present the Utilities' interests before various legislative and regulatory bodies; directing design of long range water and sewer master plans that define future community needs, facility requirements and improvements, water sources and conservation efforts and related matters, including regulatory compliance; assisting in long range financial forecasting based on service demand and revenue estimates, and capital budgeting; overseeing research studies of consultants and collaborating with major development planners on private projects that impact service demands and facility needs.

Implement, coordinate and assess administration of subordinate organizations. Involves: monitoring work progress and performance to identify problem areas and opportunities for improvement; conferring with section managers to define corrective action needed; and informing General Manager of such problems and recommended solutions in a timely manner; analyzing personnel, equipment, supplies and maintenance costs, and justifying deviations from forecasts in accordance with established financial policies, accepted engineering standards and procedures for controlling utility's receipt, allocation and expenditure of budgeted funds; conducting and analyzing technical research to advise the General Manager on engineering matters such as the design, field engineering, construction inspection and contract administration of facility improvements; conducting cost-benefit, statistical or other analyses; reviewing section funding requests, proposed program improvements and suggested staffing to prepare consolidated annual division budget, and specify related performance measures; evaluating division contributions to overall achievements of the Utilities.

Supervise supervisory and nonsupervisory engineering, technical, administrative and clerical personnel. Involves: scheduling work to expedite flow and balance loads; assigning duties, and issuing written and oral instruction; checking work for service effectiveness, quality and quantity acceptability, and policy and procedural conformance; guiding subordinates to overcome difficulties encountered, correct errors and rectify complaints; appraising performance of direct reports and reviewing employee rating by subordinate supervisors, coach to motivate competency improvement and career advancement; arranging for or conducting internal orientation, job training, employee development activities; enforcing personnel rules and regulations, and conduct, courtesy, attendance, appearance and safety standards; maintaining harmony among employees, and resolving second step grievances; participating in interviewing and hiring applicants; recommending employee commendation, pay adjustment, transfers, discipline and termination and staffing level changes and job designs.

Perform miscellaneous related general managerial and professional engineering functions as required. Involves: serving as deputy general manager, as delegated, or substituting for other functional officers regarding designated issues, if assigned, and substituting for subordinates during temporary absences to maintain continuity of services; coordinating engineering support annual budget preparation, long range planning and capital improvements, including funding with other top management in organization; participating in conferences and appearing before legislative and regulatory bodies to testify and report on Utility planning and engineering issues.

Minimum Qualifications

Training and Experience: Graduation from an accredited college or university with a Bachelor's Degree in Civil, Sanitary or Environmental Engineering, or closely related field, and ten (10) years of increasingly responsible professional civil, water resources or utility engineering, including at least five (5) years designing large (e.g. capacities of at least ten million gallons per day) water or wastewater treatment plants and five (5) years managing and administering a major engineering program or phase of activities for an organization with diverse operations or multiple locations; or an

equivalent combination of training and experience.

Knowledge, Skills and Abilities: Comprehensive knowledge of: administrative, budgetary and managerial policies and procedures applied to water utility operations; engineering methods and theories applied to design of municipal water and sewer systems and facilities; water and sewer system construction practices, preparation of specifications, quality control techniques; and construction contract award and administration procedures. Considerable knowledge of: legal financial issues affecting a water and sewer utility; environmental, regional land use and water utilities planning; municipal services needs assessments; public relations practices.

Ability to: plan, direct, supervise and coordinate the work of a large professional staff engaged in diverse programs and projects to ensure or improve effectiveness and efficiency of multi-divisional technical services; read and comprehend common technical, financial and legal documents; apply established mathematical and statistical techniques to analyze data in practical situation; define problems dealing with several abstract and concrete variables; collect and interpret an extensive variety of technical data and instruction; draw valid conclusions and initiate action to recommend, initiate and direct ongoing utility long range water and sewer projects, related facility needs assessments and capital improvement programs; guide the preparation of long term financial planning functions, to include the preparation of rate studies, multi-year budgets, and funding plans for major capital improvements projects; impartially and firmly exercise authority through subordinate supervisors to enforce personnel safety rules and regulations and provide leadership to motivate productivity and cooperation of individuals or teams of various types to render quality and timely service; establish and maintain effective working relationships with City officials, consultants, contractors, utilities, other agencies, civic organizations and the general public using diplomacy in complicated situations involving common engineering and management issues such as when responding to inquiries or complaints, negotiating business deals or resolving internal conflicts; express oneself clearly and concisely, both orally and in writing to analyze and persuasively explain complex technical and regulatory standard practices in reports correspondence, speeches and discussions.

Skill in: safe use and care of personal computer or network work station, including word processing, database and spreadsheet software programs and geographic information (GIS) and computer-aided drafting and design (CADD) systems.

Physical Requirements: Occasionally inspect facilities and work sites which involves moving about uneven terrain, climbing ladders, bending and stooping and exposure weather and other adverse working conditions.

Licenses and Certificates: Registration as a Professional Engineer in the State of Texas or professional registration in another state and have the ability to receive a Texas registration within one (1) year of date of hire; Texas Class "C" Driver's license or equivalent issued by another state.

Director of Personnel

Department Head